

Serial No. 10/605,145

In the Claims:

Please amend the claims as follows:

1. (currently amended) An assembly for producing reinforced thermoplastic materials comprising:

an injection molding die having an input end, an output end, a linear bore having a linear longitudinal axis extending between said input end and said output end, a septum wall bifurcating said bore defining two separate flow channels within said bore, said septum wall having a trailing edge;

a fiber feed tube extending through said septum wall with an input end on the exterior of said head and an output end on the interior of said bore centrally located on said trailing edge of said septum wall residing in the injection molding die; and

means for injecting a pressurized flow of molten polymer material into said injection molding die.

2. (currently amended) The assembly of Claim 1 wherein said injection molding die has an input end and an output end, said pressurized flow of molten polymer flowing in a first direction in a continuous linear flow, the direction of said linear flow being aligned with said linear longitudinal axis of said bore, whereby said septum wall separates said linear flow into said two separate flows within said two flow channels and aligns and smoothes said two continuous flows to eliminate turbulence, wherein said two continuous linear non-turbulent flows of molten polymer rejoin to form a single flow at said trailing edge of said septum wall from said input end of said injection molding die to said output end of said injection molding die; said fiber feed tube being aligned parallel

Serial No. 10/605,145

~~to said first direction and disposed to deposit a continuous strand of fiber reinforcing into said flow of molten polymer.~~

3. (original) The assembly of Claim 2 wherein said injection molding die further comprises:

a cooling section adjacent to said output end wherein said molten polymer flow is extruded and cools and becomes more viscous thereby exerting a linear force in said first direction on said fiber reinforcing strand.

4. (original) The assembly of Claim 2 wherein said continuous strand of fiber reinforcing is carbon fiber.

5. (currently amended) An assembly for producing reinforced thermoplastic materials comprising:

an injection molding die having an outer wall, an input end, an output end, a material flow channel between said input end and said output ends having a cross sectional area, a fiber feed section in said material flow channel adjacent to said input end and a cooling section in said material flow channel adjacent to said output end;

a fiber feed tube having a first end located outside said outer wall of said injection molding die and a second end located in the center of said material flow channel in said fiber feed section; and

a means for injecting a pressurized flow of molten polymer material into said input end of said injection molding die, wherein said pressurized flow of molten polymer

Serial No. 10/605,145

flows in a linear fashion from said input end of said material flow channel to said output of said material flow channel.

6. (canceled)
7. (currently amended) The assembly of ~~Claim 6~~ Claim 5 wherein said fiber feed tube is aligned in the same direction as said linear flow of molten polymer.
8. (original) The assembly of Claim 5 wherein said material flow channel is tapered and said cross sectional area decreases in size from said input end to said output end.
9. (original) The assembly of Claim 5 wherein said means for injecting a pressurized flow of molten polymer is an injection molding barrel and plunger assembly.